



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,538	07/23/2003	William J. Kroppe	8200.735	7522
7590 06/13/2006				
Liniak, Berenato & White 6550 Rock Spring Drive, Ste. 240 Bethesda, MD 20817			EXAMINER ILAN, RUTH	
			ART UNIT 3616	PAPER NUMBER

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,538

Applicant(s)

KROPPE, WILLIAM J.

Examiner

Ruth Ilan

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfe (US 5,390,121) and Carlson et al. (5,284,330) in view of Karnopp et al. (US 3,807,678.) Wolfe teaches a suspension system supporting a vehicle body (22) and including an energy absorbing assembly including a spring (30) and a rheological force device, that disclosed by Carlson et al. in US 5,284,330 and incorporated by reference by Wolfe (see col. 4, lines 40-48.) Also taught are sensors that include steering wheel angle sensors and speed sensors and lateral acceleration (58A and 58B.) Also taught is a 12Volt power source (64.) A predetermined algorithm is used to control the variable supplemental resistive force (see col. 6, line 44-col. 7, line 45.) As shown in Figure 6, the semi active suspension is applied to all four wheels. As seen in Figure 6, axles are included. Based on Applicant's assertion in the remarks of 4/3/06, these axles are generally well understood to include "some support member disposed between the axle and wheel to facilitate the rotatable support..." As seen in Figure 1 the force device is connected in parallel with the coil spring (30) and have no direct connection with the coil spring. Carlson et al., who is incorporated by reference teaches the claimed piston structure, including the piston movement being dependent on viscosity and the integral coil (40.) Wolfe fails to teach a damper included with the spring. Karnopp et al. teaches that it is known to include a passive damper (25) with a semi active suspension system,

Art Unit: 3616

and that such a device is useful to dampen the magnitude of amplification in the frequency range at or near resonant frequency (see col. 4, line 60.) It would have been obvious to one having ordinary skill in the art at the time of the invention to include a passive damper in view of the teaching of Karnopp et al. with the coil spring isolator of Wolfe et al., in order to decrease the magnitude of amplification at the resonant frequency.

Response to Arguments

3. Applicant's arguments filed 4/3/06 have been fully considered but they are not persuasive. Claim 30 is essentially the same in scope as cancelled claim 28, and the rejection stands. The Applicant has indicated that the prior art is "void" of a separate and independent force device. As discussed above, Wolfe teaches a separate force device, that is separate from the coil spring, and used in a semi-active suspension system. The only difference between the claimed subject matter and Wolfe is the addition of a damper included with the coil spring. Karnopp et al. teaches that a damper may be used in a semi-active suspension system that includes a coil spring, and an actively controlled suspension. Karnopp et al. and Wolfe teach essentially the same environment, the only difference is that the active control of Wolfe is specifically a rheological force device, and in Karnopp et al. it is broadly disclosed, as including "electro-viscous". Karnopp et al. additionally includes a motivation for including both a coil spring and a damper (25) as part of the passive system., that of dampening the magnitude of amplification in the frequency range or at near resonant frequency. As such it is not well founded that the Examiner included a piecemeal analysis, since the

limitations are all found in the prior art, and the motivation to combine these analogous systems is also found directly in the prior art.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth Ilan whose telephone number is 571-272-6673.


The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ruth Ilan
Primary Examiner
Art Unit 3616



6/9/06

RI
6/9/06